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| EXAMINER |
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MARC COLEMAN, MARTHE Y

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| ART UNIT | PAPER NUMBER |
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3661

DATE MAILED: 02/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/643,637

Applicant(s)

WILSON ET AL.

Examiner

Marthe Y Marc-Coleman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 27-33 is/are rejected.
- 7) ☒ Claim(s) 18-26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This office action is response to Application Serial No. 10/643,637 in which claims 1-33 are presented for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-6 and 10-15, are rejected under 35 U.S.C. 102(e) as being anticipated by Breed (U.S. Pub. No. 2001/0002451).

In regard to claim 1, Breed discloses a method comprising:

- configuring one or more sensors on a vehicle collectively to detect two or more operating parameters of the vehicle (see [0094], [0139], [0144], [0145], [0149], [0165-0169] and [0121]);
- wirelessly transmitting signals representative of the two or more operating parameters from the one or more sensors to a processor on the vehicle (see [0202] and [0182]);
- performing diagnostics analysis on the signals with the processor (see claim 1).

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In regard to claim 2, Breed discloses that the analysis yields a result that is indicated to an operator of the vehicle (see [0170] and [0181]).

In regard to claim 3, Breed discloses that the analysis yield a result and further comprising wirelessly communicating to a vehicle facility (see [0202] and claim 14).

In regard to claim 4, Breed discloses that the wirelessly communication is via a cellular telephone network (see [0180]).

In regard to claim 5, Breed discloses that the wirelessly communication is via satellite link (see [0187]).

In regard to claim 6, Breed discloses that the vehicle management facility controls maintenance or repair based on the result (see [0180]).

In regard to claims 10-15, Breed discloses an apparatus comprising:

- a first number of sensors collectively configured to provide data signals indicative of one or more operating parameters of a machine, where the first number is at least one (see [0094], [0139], [0144], [0145], [0149], [0165-0169] and [0121]);
- a second number of semi-passive RF tags, coupled to the first number of sensors effectively to transmit the data signals, where the second

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number is at least one (see [0094], [0139], [0144], [0145], [0149], [0165-0169] and [0121]);

- one or more data collection devices that interrogate the semi-passive RF tags to read the data signals (see [0202] and [0182] see claim 1).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7-9, 16, 17, and 27-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breed (U.S. Pub. No. 2001/0002451) in view of

In regard to claims 7-9, while Breed discloses to wirelessly communicating to a vehicle management facility in [0202], Breed fails to specifically disclose the facility stores the results from a plurality of vehicles wherein the facility analyzes the results from the plurality of vehicle.

Chou et al. discloses a method for vehicle diagnostic and health monitoring wherein the facility stores the results from a plurality of vehicles wherein the facility analyzes the results from the plurality of vehicle (see abstract).

At the time of the invention, it would have been obvious to one of the ordinary skill in the art to utilize the remote service center of Chou et al. with the diagnostic system of Breed because such combination would enhance the diagnostic system of

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the vehicle by detecting a potential malfunction early and transferring it to the remote station for assistance, repair or maintenance.

In regard to claims 16 and 17, Breed discloses a method for monitoring a vehicles, comprising :

- acquiring two or more operating parameters of a vehicle using one or more sensors on the vehicle (see [0094], [0139], [0144], [0145], [0149], [0165-0169] and [0121]);
- wirelessly transmitting a second signal representative of a second number of the operating parameters via cellular telephone connection to a remote receiver, where the second number is at least one (see [0180])

While Breed discloses a remote subsystem in [0202], Breed fails to specifically disclose details information about the remote subsystem

Chou et al. discloses processing the operating parameters with a remote processor in communication with the remote receiver (see Figs. 1, 3-5).

At the time of the invention, it would have been obvious to one of the ordinary skill in the art to utilize the remote service center of Chou et al. with the diagnostic system of Breed because such combination would enhance the diagnostic system of the vehicle by detecting a potential malfunction early and transferring it to the remote station for assistance, repair or maintenance.

In regard to claims 27-33, Breed discloses a system comprising:

- a vehicle subsystem mounted on a vehicle, comprising:
- one or more sensors collectively detecting two or more operating parameters of the vehicle (see [0094], [0139], [0144], [0145], [0149], [0165-0169] and [0121]);
- a first receiver for wirelessly receiving a first set of signals that are collectively representative of the two or more operating parameters (see [0182], [0202] and claim 14;
- a first transmitter and a first processor in communication with the transmitter to process the two or more operating parameters(see [0202] and [0182]); and
- a second signal, wireless transmitted by the first transmitter, that is representative of at least one of the two or more operating parameters(see [0180], [0187], [0202] and claim 14);

While Breed discloses a remote subsystem in [0202], Breed fails to specifically disclose details information about the remote subsystem.

Chou et al., on the other hand, discloses and a remote subsystem comprising:

- a second receive for receiving the second signal; a second processor in communication with the second receiver; and a memory in communication with the second processor, the memory being encoded with programming instruction executable by the second processor to

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analyze the at least one of the two or more operating parameters (see Figs. 1-5)

At the time of the invention, it would have been obvious to one of the ordinary skill in the art to utilize the remote service center of Chou et al. with the diagnostic system of Breed because such combination would enhance the diagnostic system of the vehicle by detecting a potential malfunction early and transferring it to the remote station for assistance, repair or maintenance.

Allowable Subject Matter

6. Claims 18-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marthe Y Marc-Coleman whose telephone number is (703) 305-4970. The examiner can normally be reached on Monday-Thursday from 9:30 AM - 8:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William A Cuchlinski can be reached on (703) 308-3873. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner
Marthe y. Marc-Coleman
Marthe Marc-Coleman

February 3, 2004